control the bleeding. The patient left the hospital in 2 weeks in excellent condition.

After a careful study of the conditions accompanying fibroid tumors, I am forced to favor early operation in any woman with a tumor presenting such symptoms as would warrant a pelvic examination; in the young, because of sterility or of the dangers incident to child-bearing, besides the systemic changes and invalidism which may be expected; near the menopause, because of the degenerations which so frequently occur.

I would urge that in all cases, the patient being under 35 years of age, where there are no constitutional contraindications and no inflammatory disease of the appendages, that a myomectomy be considered and carried out, if possible.

DISCUSSION.

Dr. W. F. B. Wakefield, San Francisco. I heartily agree with the opinion expressed by Dr. Bullard in her excellent paper. We have been generally taught to believe that these myomatous growths of the uterus were very simple in their histologic construction and very benign in their constitutional effect, being simply a mass of non-striped muscular fiber likely to disappear at or near the menopause, and only occasionally requiring to be removed because they have produced excessive hemorrhage or grown to an unusual size. Such has been the opinion that has very generally prevailed regarding these tumors, and, I regret to say, such is the opinion that still prevails in the minds of many.

When S. E. Gordon of Portland, Maine, at the meeting of the American Gynecological Society in 1893, gave voice to the opinion that the sum total of woman's life, health and happiness would be vastly improved if every uterine myoma was removed as soon as discovered, he created a perfect furore in the ranks of the gynecologists, and subjected himself to scathing criticism. I am about prepared to agree with Dr. Gordon. I think were Dr. Gordon to repeat this opinion now he would meet with less criticism.

Dr. Bullard has carefully reviewed for us the excellent publications of Noble, Cullingworth, Frederick and others, in which our attention is forcibly drawn to the many degenerative changes which may occur in connection with uterine myomata, and particularly is our attention drawn to the increased relative frequency of adeno-carcinoma of the body of the uterus associated with these growths. Issue has been taken to this statement on the ground that a tumor of the connective tissue variety could not be a factor in the production of an epithelial neoplasm. Such a view seems to me untenable if we still hold to the belief, as I think most of us do, that local irritation of various kinds plays an important etiologic role in the production of epithelial growths. It seems to me that, from the recent investigations and published reports regarding the remote results produced by uterine myomata, we are forced to the conclusion that women suffering from these neoplasms become afflicted with adeno-carcinoma of the body with much greater relative frequency than would obtain in the same number of women of the same age and walk of life whose uteri were not the seat of myomatous tumors.

I think we must change our views regarding the innocence of these uterine tumors, and I believe that the profession as a whole is being rapidly converted to the belief that these growths are far from being harmless, and, in fact, when we consider the necrotic, septic and malignant degenerations that may take place in the tumor itself, as well as similar changes that may occur in the surrounding viscera, due to the presence of these tumors, to say nothing of the cardiac and renal changes which may result from their long-continued presence, we must look upon the uterine myoma as a very decided menace to the life and health of the woman possessing it.

I am impressed with the frequency of ovarian hematoma associated with uterine myomata, and am surprised that Noble, in his 1188 cases, reports only one case, that case occurring in Frederick's statistical review of his 125 cases. Dr. Bullard reports the occurrence of ovarian hematoma in one of the 5 cases recorded by her. Lauwers encountered 11 cases in 150 operations for uterine myomata. Rufus Hall calls our attention to this same condition. He believes it to be produced by pressure upon the ovary due to its imprisonment below the tumor, but I rather think that the condition is produced by secondary degenerative changes in the ovary itself, and am led to this belief by the fact that I have seen a good-sized hematoma of the ovary associated with a simple hyperplasia of the myometrium, accompanying which were the ordinary circulatory disturbances that characterize myomatous tumors.

PARA-TYPHOID INFECTION.*

By E. W. TWITCHELL, M. D., Sacramento.

IN 1896, Achard and Bensaude found in the pus of an inflammatory process at the sterno-clavicular joint, following a continued fever of several weeks' duration, an organism similar to those of the colon group, and designated the diseased condition in question para-typhoid. Interest being awakened, reports of cases accumulated, until at the present writing para-typhoid infections may be regarded as having an assured place in pathology.

Widal and Nobécourt in 1897 recovered from the thyroid gland a bacillus apparently identical with that of Achard and Bensaude, calling it the paracolon bacillus. In the same year, Gwyn of Osler's clinic came upon a case in clinical features undistinguishable from common enteric fever, but whose serum persistently failed to agglutinate cultures of the *bacillus typhi;* a bacillus was found in the blood, however, which was agglutinated by the patient's serum in a dilution of 1-200. In 1901 Schottmüller reintroduced the name of para-typhoid bacillus, originally proposed by Achard and Bensaude, and this continues to be the preferred designation.

Schottmüller reported two distinct bacilli having much in common, each, however, refusing to be agglutinated by sera coming from patients infected with the other. These two bacilli were called respectively *Bac. Paratyphosus A* and *Bac. Paratyphosus B*, names corresponding to the *Bacilli Paratyphi a* and *b* of Buxton. They belong to the group which includes the bacilli of meat poisoning, the bacillus of hog cholera, etc. They ferment glucose like *Bac. Coli*, but like *Bac. Typhi* do not form indol or gas in lactose.

The infection is widely distributed geographically, cases being reported from most of the European countries, from South America, from the Philippines and from various points of the United States. Series of cases in a neighborhood or in a single family are common.

Pathology. The spleen is, as a rule, enlarged. The intestinal changes of typhoid were wanting in patients coming to autopsy, but the occasional report of intestinal hemorrhage, and the marked diarrhea now and then noted, would indicate that the bowel is not exempt in all cases. Ophüls has suggested the cases of typhoid without intestinal lesions may have been cases of para-typhoid. A feature of interest is the wide distribution of the bacillus in the organism, it being found in nearly all organs and tissues. This explains the extraordinarily large percentage of complications and sequelæ.

As to the comparative frequency of the two infections, by far the greater number of cases reported were of infection with *Bac. Paratyphosus B.*

Symptomatology. Clinically there is but little difference between para-typhoid and typhoid. The classic features of true enteric, nosebleed, roseola, splenic enlargement, diarrhea, tympanites, delirium, continued fever and Diazo reaction may all be present. It is usual to remark that the course is generally shorter

*Read by Title at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

and milder than that of typhoid, but upon reading reports of cases, one is impressed with the frequency of complications and their variety and severity; abscesses of various glands, purulent arthritis, osteomylitis, pleurisy and orchitis are but instances.

It is too soon to say whether or not one attack confers immunity, as is the rule in typhoid, and apropos of this, Coleman suggests that so-called reinfection with typhoid may be a typhoid infection followed by a para-typhoid or vice versa. A recently reported case shows the probability of simultaneous infection with *Bac. Typh.* and *Bac. Paratyph.*

Diagnosis is possible in two ways only, and more likely by one—agglutination and cultivation from the blood of patient. The recent work of Grünberg and Rolly has shown how untrustworthy the agglutination test may be.

There remains, therefore, only cultivation of bacilli from the blood or other portions of the organism, and here, if examination is too long delayed, one may fail, for the blood which may be full of bacilli in early stages of the disease may be sterile later.

MESENTERIC THROMBOSIS; REPORT OF CASE.*

By DAVID A. CONRAD, M. D., Santa Barbara.

THE FOLLOWING case is of interest from its clinical course, condition found on exploratory laparotomy, and final autopsy findings:

The patient was a male, 19 years of age, family history negative. No venereal history. History of illness some months previously which was considered as appendicitis by the attending physician.

The present illness commenced with pain in the right side of the abdomen, with general symptoms suggestive of la grippe. His temperature continued high, and some days later a few rose spots made their appearance on the abdomen. About this time there was a considerable hemorrhage from the bowels, and it was considered to be probably typhoid fever. The abdominal symptoms cleared up, and there were no serious symptoms. The temperature continued high with morning remissions.

On February 19th I first saw the patient with Dr. Flint. His temperature was 103.4°. He complained of pain and distress in the abdomen. Bowels were constipated. Abdomen was slightly distended, regular in outline and tender transversely below the umbillicus. The point of maximum tenderness was at the left margin of the epigastrium, extending from there to the spleenic region. Superficial and deep palpation of entire abdomen revealed nothing adventitious, pain being excessive only as before mentioned. Conditions in right illiac fossa seemed normal. Leukocytes 28,000. On February 22d he was removed to the hospital. His condition at this time was about the same. The point of maximum tenderness had shifted to the epigastrium. The liver was not enlarged, but was tender over its entire anterior surface, and particularly over the left lobe. The spleen was slightly enlarged, and there was some dullness in the upper portion of the left flank. His temperature rose to 103° in the afternoon. Perspired freely, and had one or more chills daily. Bowels moved freely with the aid of cathartics. Early in the disease free catharsis always ameliorated the abdominal symptoms. Urine negative, with the exception of indican.

It was clear that pus was present in the upper portion of the abdomen, but the difficulty lay in localizing it.

On February 23d we decided to make an exploratory operation, having the idea that there might be a subdiaphragmatic abscess in the neighborhood of the spleen and extending over the left lobe of the liver. A green soap poultice was applied to the abdomen. On the 24th he felt so much better that we decided to postpone the operation. The tenderness had diminished considerably, and he wanted for the first time to move about in the bed and read. Alcohol compresses were applied, and he rested easily. On the 25th he again complained of severe pain, tenderness again very great over left lobe of liver and in the region of the spleen. It was greater generally in the upper portion of the abdomen. Distension was considerable, with areas of tympany and of comparative dullness. Bowels moved with the aid of/ enema or cathartics. He continued in very much the same condition, with the exception that he had no more chills, and temperature was lower. At times he would be quite comfortable, at others he would complain of severe colicy pain. He liked to have a pillow on his abdomen, stating that the pressure made him more comfortable.

On March 6th an exploratory operation was done, as his condition did not improve. Median incision in the epigastrium. On opening the peritoneal cavity a large quantity of dark red serum escaped, and a mass of greatly distended intestines presented; they were lustreless, dark red in color, the veins were of large size and greatly distended with dark blood. There were no signs of peritonitis in the neighborhood of the incision. The surface of the liver was smooth, and it was not enlarged. There was nothing abnormal in the region of the spleen. There was a small amount of lymph attached to the intestines in places; it was soft and gelatinous. Below and to the left were a few adhesions. On the posterior wall of the abdomen there was a firm body extending from the region of the spleen towards the right transversely, considered pancreas. Owing to the great amount of distension, all manipulations were extremely difficult. No condition to account for the obstruction to the mesenteric circulation could be found in the upper part of the abdomen. The case was considered as one of mesenteric thrombosis, and not amenable to further operative procedures. As the original trouble was apparently in the appendix, this region was explored through a small incision, but with negative result. Incisions were closed and patient returned to bed in good condition. He seemed more comfortable for a short time after the operation, but his condition steadily grew worse. On the 11th, vomiting commenced, gradually increasing in severity. The bowels moved by enema. Death occurred on the 14th from exhaustion.

Autopsy. Body was greatly emaciated. The two operation wounds in the abdomen were in a healthy condition. Abdomen opened by median incision. On opening cavity a large amount of odorless, blood-stained serum escaped. There was considerable lymph scattered over the surface of the intestines. The small intestine was very dark red in color, in contrast to the colon, which appeared pale. The sigmoid flexure appeared to be on the right side, but this was found to be due to its great length and distension. The liver showed very slightly below the margin of the ribs. In the left hypochondrium the intestines were matted together in a large mass, but were easily separable. The mass was covered by great omentum. On separating the coils a foul thick pus exuded, which seemed to have its origin in the mesentery. On raising the stomach, pus escaped posteriorly, and was seemingly contained in the folds of the mesentery. The abdomen was otherwise free from peritonitis. The stomach was dilated, and contained a large amount of fluid.

Spleen slightly enlarged. Kidneys normal. Hypostatic pneumonia of lower lobes of both lungs.

On incising the liver, left lobe, pus escaped, and on examination was found to extend from mesenteric fold to transverse fissure, thence into substance of liver. Gallbladder normal. Further incisions revealed the liver to contain a mass of thick, foul pus radiating in all directions, so much so that there was comparatively little liver tissue left. The path taken by the pus was evidently through the transverse fissure, behind the peritoneum, and into the folds of the mesentery. The mesenteric veins were occluded by a soft, loose thrombus; the portal was free.

Examination of intestines from stomach to rectum showed no ulceration. Appendix adherent, small, no signs of recent affection.

Smears were taken from the pus and showed a small bacillus very like the colon bacillus. No others were found. Cultures were unfortunately not made.

The case presents two interesting conditions. There can be but little doubt that the suppuration in the liver was a suppurative cholangitis, that it found vent at the entrance of the hepatic vessels and burrowing between the layers of peritoneum caused the thrombosis of the superior mesenteric vein. From the history I am inclined to consider it as a typhoid or colon infection. In the limited amount of literature at hand I can find no reference to a similar condition.

Mesenteric thrombosis, however, is a condition that is met with not infrequently. In the present case its symptoms were masked by, and masked in turn, the symptoms of the abdominal abscess, yet there were many that were characteristic.

This condition is fortunately of rare occurrence, as it is one of the most fatal of abdominal affections. As we would expect in the organs affected, the symptoms are very complex and not well differentiated, having many points in common with other abdominal affections and oftentimes disguised by those of the primary lesion which is the cause of the thrombosis. A very extensive description is given by Jackson, Porter, and Quinby in the *Journal of the American Medical Association* for June 1904, *et seq.* In an exhaustive analysis of 214 cases, they point out the difficulties connected with its diagnosis and treatment. Since that time I have noticed a few cases referred to, generally a complication of other conditions.

The condition was first described by Virchow in 1847, but was not completely described until 1875,

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